IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	:	
John C. Parsons et al.	:	Examiner: Arden B. Sperty
U.S. Serial No. 09/883,520	:	Group Art Unit: 1771
Filed June 18, 2001	:	
Docket No. 1931.VIN	:	
For: WATER DISPERSIBLE, SALT SENSITIVE NONWOVEN MATERIALS	:	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

DECLARATION UNDER 37 CFR 1.132

John C. Parsons, co-inventor of the subject matter of the above-noted patent application hereby declares that:

1. That he was awarded a Master's degree in Chemistry from State University of New York at Oswego and a Bachelor's degree in Chemistry from Rensselaer Polytechnic Institute and has worked in the field of polymer technology for eleven years. That he is a co-inventor of the pending '520 application referenced above (the subject matter of which is sometimes referred to herein as "the present invention") and makes this declaration in support of patentability.

2. That he is familiar with the Official Action rejecting the pending claims of the above-noted patent application, dated May 23, 2005, as well as with United States Patent No. 6,444,214 to *Cole et al.*, which is the basis for the rejections made in the Official Action over prior art.

3. That *Cole et al.* describes nonwovens with water *soluble* binders made of *solutions* containing mostly *highly soluble* Acrylic Acid ("AA") polymers. The present invention, on the other hand, is directed to webs with *emulsion* residue binders that can *disperse* in water, but are salt-sensitive such that they do not disperse in salt solutions; an invention which is substantially different from and not, in his opinion, even remotely suggested by *Cole et al.* Amended Claim 1 is illustrative of the present invention:

> 1. A non-woven material comprising
> a) a web of fibers; and
> b) an emulsion binder comprising a tap water-dispersible polymer which is non-dispersible in aqueous solutions containing 0.5 weight percent or more of an inorganic salt, wherein said water-dispersible polymer comprises from 1 to 100 percent by weight of a hydrophilic monomer and from 0 to 99 percent by weight of at least one non-hydrophilic monomer, wherein said polymer has a Tg of from -40°C to +105°C, and wherein said ***binder*** comprises an ***aqueous emulsion residue*** which exhibits salt sensitive dispersibility in tap water.

4. That the binders employed in connection with the present invention are made of polymers which are not fully water-soluble, and therefore, can form emulsions in water as is claimed. Emulsions are different from solutions, and have certain advantages. For one, they have relatively low viscosity as compared with solutions of similar polymer content, reducing shipping and handling difficulties. Another advantage is emulsions are generally more stable than polymer solutions which are

homogenous, one-phase mixtures, where all the components are blended within one another at the molecular level and which generally tend to separate over time, even under ideal conditions.

5. That he personally observed that the aqueous emulsion binder applied to nonwoven webs of the invention which include monomers such as Methacrylic Acid are readily dispersible in tap water containing less than 0.5 percent by weight salt, despite their relative low solubility and strong bonding to various fibrous substrates. This can be seen in Examples 1-8 of the pending application as filed.

6. It is unexpected based on his experience, and based on *Cole et al.* that emulsion binders including polymers which are not fully *water-soluble* can form emulsion residue binders which readily *disperse in water* but that the *dispersibilty is salt-sensitive* as is claimed in the above referenced application. This is a superior result because of the enhanced processability of emulsion binders and their shipping and handling advantages noted above. The result is unexpected because the non-water soluble polymers of the present invention have much lower water solubility than the acrylic acid, highly water soluble polymers disclosed by *Cole et al*, for example; yet the binders are nevertheless dispersible in tap water and non-dispersible in salt solution. One of skill in the art would not expect this result; especially because of the fact the polymers are not water soluble.

7. The undersigned Declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the subject application or any patent issuing thereon.

Dated September 12, 2005

John C. Parsons